

March 26, 2008

LISTING OF THE CLAIMS:

Claim 1 (Original). A process for reducing an exocyclic double bond at the 5-position of a thiazolidinedione moiety of a thiazolidinedione precursor comprising the steps of:

- a) preparing a solution or suspension of the thiazolidinedione precursor in a non-ether solvent medium with a base. and
- b) combining the solution or suspension with a dithionite source.

Claim 2 (Previously Presented). The process as claimed in claim 1, wherein the solvent medium is water or a mixture of water with one or more organic solvents.

Claim 3 (Previously Presented). The process as claimed in claim 2, wherein the organic solvent is an alcohol, an alkyl ester, an aromatic hydrocarbon, a halogenated hydrocarbon, an amide, a urea, or a mixture thereof.

Claim 4 (Previously Presented). The process as claimed in claim 2, wherein the organic solvent is methanol, ethanol, isopropanol, ethyl acetate, toluene, xylene, methylene chloride, N,N-dimethyl- formamide, or a mixture thereof.

Claim 5 (Previously Presented). The process as claimed in claim 1, wherein the dithionite source is sodium-, lithium-, potassium-, calcium-, magnesium-, a tetraalkylammonium- or a guanidinium-dithionite.

Claim 6 (Previously Presented). The process as claimed in claim 1, wherein the dithionite source is sodium dithionite.

Claim 7 (Previously Presented). The process as claimed in claim 1, wherein the base is an alkaline or alkaline earth carbonate, an alkaline hydrogen carbonate, an organic secondary or tertiary amine or an amidine.

Claim 8 (Previously Presented). The process as claimed in claim 1, wherein the base is sodium carbonate or potassium carbonate.

Claim 9 (Previously Presented). The process as claimed in claim 1, which process takes place in the presence of a phase-transfer catalyst.

Claim 10 (Previously Presented). The process as claimed in claim 1, wherein the phase-transfer catalyst is a tetrabutylammonium halide, a tetraethylammonium halide or a benzyl tributylammonium halide.

Claim 11 (Previously Presented). The process as claimed in claim 1, wherein the thiazolidinedione precursor is 5-[4-[2-(5-ethyl-2-pyridinyl)ethoxy]phenyl]methenyl-2,4-thiazolidinedione or 5-[4-[2-(methyl-2-pyridinylamino)ethoxy]phenyl]methenyl-2,4-thiazolidinedione.

Claim 12 (Previously Presented). The process as claimed in claim 1, wherein the thiazolidinedione precursor is 5-[4-[(3,4-dihydro-6-hydroxy-2,5,7,8-tetramethyl-2H-1-benzopyran-2-yl)methoxy] phenyl]methenyl-2,4-thiazolidinedione.

Claim 13 (Previously Presented). The process as claimed in claim 1, wherein the solution or suspension of the thiazolidinedione precursor in the solvent medium with the base is combined with the dithionite source at a temperature at about 40°C to 100°C.

Claim 14 (Previously Presented). The process as claimed in claim 1, further comprising the step of isolating the reduced thiazolidinedione precursor.

Claim 15 (Previously Presented). A process for preparing a thiazolidinedione antihyperglycemic compound comprising reducting the exocyclic double bond at the 5-position of a thiazolidinedione moiety of a corresponding thiazolidinedione precursor which process comprises the steps of:

- a) preparing a solution or suspension of the thiazolidinedione precursor in a non-ether solvent medium with a base, and heating the solution or suspension to a temperature of about 40°C to 100°C,
- b) combining the solution or suspension with a dithionite source selected from the group of sodium-, lithium-, potassium-, calcium-, magnesium-, a tetraalkyl- ammonium- or a guanidinium-dithionite, to provide a reaction mixture,
- c) maintaining the reaction mixture at a temperature of about 40°C to 100°C, and
- d) isolating the resulting thiazolidinedione antihyperglycemic compound as free base.

Claim 16 (Previously Presented). The process as claimed in claim 15, wherein the thiazolidinedione antihyperglycemic compound is pioglitazone, rosiglitazone or troglitazone.

Claim 17 (Previously Presented). A process for preparing pioglitazone, which process comprises the following steps:

- a) preparing a solution or suspension of 5-[4-[2-(5-ethyl-2-pyridinyl) ethoxy] phenyl]methenyl-2,4-thiazolidinedione in a non-ether solvent medium with a base, and heating the solution or suspension to a temperature of about 60°C to 80°C,
- b) combining the solution or suspension with sodium dithionite to provide a reaction mixture,
- c) maintaining the reaction mixture at a temperature of about 60°C to 80°C, and
- d) isolating pioglitazone as free base.

Claim 18. (Previously Presented) A process for preparing rosiglitazone, which process comprises the following steps:

- a) preparing a solution or suspension of 5-[4-[N-(2-pyridinyl)-N-methyl]ethoxy]phenyl]methenyl-2,4-thiazolidinedione in a non-ether solvent medium with a base, and heating the solution or suspension to a temperature of about 60°C to 80°C,
- b) combining the solution or suspension with sodium dithionite to provide a reaction mixture,
- c) maintaining the reaction mixture at a temperature of about 60°C to 80°C, and
- d) isolating rosiglitazone as free base.

Claim 19 (Previously Presented). The process as claimed in claim 15, wherein the reaction mixture is cooled to about 0°C to 30°C before isolation of the thiazolidinedione antihyperglycemic compound.

Claims 20 – 24 (Cancelled).